



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/640,276	10/09/2012	Stuart James Drummond	29329	6735

23389 7590 12/07/2016
SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

EXAMINER

JOHNS, HILARY LYNN

ART UNIT	PAPER NUMBER
----------	--------------

3618

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/07/2016

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@SSMP.COM

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte
STUART JAMES DRUMMOND and
PATRICK ROBERT GRIFFIN

Appeal 2015-000835
Application 13/640,276
Technology Center 3600

Before MICHAEL L. HOELTER, JEFFREY A. STEPHENS, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from a final rejection of claims 1–20. Br. 3–5. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE CLAIMED SUBJECT MATTER

The disclosed subject matter “relates to the reduction of the thermal signatures of wheeled vehicles.” Spec. 1:3–4. Claims 1 and 20 are independent. Claim 1 is illustrative of the claims on appeal and is reproduced below:

1. Apparatus for reducing the thermal signature of a wheel and adjacent parts of a vehicle comprising a first thermal shield configured to be mounted outwardly from the wheel and to extend over at least a substantial portion of the radial extent thereof, and a second thermal shield configured to be mounted from fixed structure of the vehicle outwardly of the first thermal shield, and to overlap at least part of said first shield, the second thermal shield being configured to reduce the thermal signature of parts of a vehicle adjacent to the wheel.

REFERENCES RELIED ON BY THE EXAMINER

Cheng	US 5,961,148	Oct. 5, 1999
Sallee	US 5,976,643	Nov. 2, 1999
Randy	US 2007/0268173 A1	Nov. 22, 2007
Hembise ¹	EP 1 480 001 A1	Nov. 24, 2004

THE REJECTIONS ON APPEAL

Claims 1–10, 12–18, and 20 are rejected under 35 U.S.C. § 103(a) as obvious over Hembise and Sallee.

Claim 11 is rejected under 35 U.S.C. § 103(a) as obvious over Hembise, Sallee, and Cheng.

Claim 19 is rejected under 35 U.S.C. § 103(a) as obvious over Hembise, Sallee, and Randy.

¹ Two translations of this document appear in the record. While there are differences between them, such differences are not such that a different analysis would arise as a result of relying on one over the other.

ANALYSIS

The rejection of claims 1–10, 12–18, and 20 as obvious over Hembise and Sallee

Appellants argue independent claims 1 and 20 together. Br. 9–17. Appellants also state, regarding claims 2–10 and 12–18, that these claims “are allowable at least for the reasons set forth above for claim 1.” Br. 18. Accordingly, we select claim 1 for review, with claims 2–10, 12–18, and 20 standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner primarily relies on the teachings of Hembise, including the disclosure of “a first thermal shield (brush 7 with screen 23)” and “a second thermal shield (flexible flap 24).” Final Act. 2. The Examiner also identifies where Hembise provides such shielding specifically “to reduce the infrared signature of a vehicle wheel.” Final Act. 2 (referencing Hembise ¶ 5). The Examiner, however, acknowledges that Hembise does not explicitly disclose the second thermal shield being “configured to reduce the thermal signature of parts of a vehicle adjacent to the wheel.” Final Act. 3. On this point, the Examiner relies on Sallee for teaching “a low thermal signature camouflage garnish, including a second thermal shield (material 100) configured to reduce the thermal signature of parts of a vehicle adjacent to the wheel.” Final Act. 3; *see also* Ans. 7. Here, the Examiner references Sallee’s discussion of “lowering the energy and reducing the infrared signature of the camouflaged object” (i.e., the vehicle in general, and not just its wheels as in Hembise).² Final Act. 3; Ans. 7 (both referencing Sallee

²Sallee also teaches that the effect of the disclosed device “is to induce a flow of air of sufficient magnitude to remove the heat accumulated by the camouflaged object.” Sallee 8:20–22.

8:1–24). The Examiner concludes that it would have been obvious “to include a second thermal shield configured to reduce the thermal signature of parts of a vehicle adjacent to the wheel . . . as taught by Sallee with the invention of Hembise for the purpose of dissipating heat around the wheel housing.” Final Act. 3; Ans. 8.

Appellants disagree with the Examiner’s findings that Hembise discloses “a second thermal shield.” Br. 10, 11; *see also id.* at 12–14. Appellants contend that the Examiner appears to have “relied on a machine translation” and that “a formal full translation of Hembise” differs regarding the description of Hembise’s item 24. Br. 9–10. Indeed, there is a variation in how the two translations of Hembise identify item 24 (one refers to it as a “flexible flap” while the other refers to it as “a flexible mud guard”). *See* ¶ 25 of the respective translations. Nevertheless, regardless of how item 24 is described, the Examiner acknowledged that Hembise “does not explicitly disclose” this flexible item as being “configured to reduce the thermal signature of parts of a vehicle adjacent to the wheel.” Final Act. 3. Accordingly, and as indicated *supra*, the Examiner relied on Sallee, and particularly Sallee’s items 10 and 100, for such teaching. Final Act. 3; Ans. 7. Accordingly, Appellants’ focus on the difference in the translations of Hembise, and also that Hembise’s item 24 is not described as a thermal shield (*see* Br. 10–11; *see also id.* at 12–14), is not persuasive of error in the Examiner’s reliance on Sallee for disclosing the claimed “second thermal shield.”³

³ Furthermore, the Examiner’s stated reason to combine is “to include a second thermal shield” “as taught by Sallee with the invention of Hembise for the purpose of dissipating heat around the wheel housing.” Final Act. 3.

Regarding Sallee, Appellants contend that “[t]here is no disclosure of the material 100 being a second thermal shield” and that “[t]he thermal reduction is provided by the shape of the garnishes inducing air flow around the vehicle.” Br. 11. Appellants appear to be mis-reading the Examiner’s rejection, and also Sallee, by asserting that “[t]here is no disclosure of the material 100 being a second thermal shield.” Br. 11; *see also id.* at 12. First, the Examiner is identifying both Sallee’s camouflage material 100 and also Sallee’s garnish 10 as the claimed “second thermal shield,” not just material 100 alone. Final Act. 2; Ans. 7. Further, even should the Examiner be identifying material 100 alone, Figure 11 of Sallee “is a graph of the temperature increase experienced by three camouflaged structures,” one being material 100 alone, the other two graphed structures being material 100 combined with garnish 10. Sallee 7:30–44. Thus, Sallee illustrates the thermal shielding that is provided by material 100 alone, but when material 100 is combined with garnish 10, such shielding improves. Accordingly, Appellants’ contention that “[t]here is no disclosure of the material 100 being a second thermal shield” (Br. 11) is not persuasive of Examiner error.

Appellants also contend that “Sallee is silent on the use of the material 100 or garnishes 10 for masking the IR signature of parts of a vehicle adjacent the wheel.” Br. 12. First, Appellants are not correct that Sallee is silent regarding masking IR signatures, because Sallee is specifically directed to reducing an infrared signature. *See* Sallee 2:22–24, 2:46–50, 8:9–12; *see also* Sallee Abstract, 1:17–20, 1:66–2:20. Regarding Appellants’ contention pertaining to “parts of a vehicle adjacent the wheel,” *see* Sallee, column 8, lines 1–24 discussed *supra*. Appellants’ contention is not persuasive of Examiner error.

Appellants also contend that the Examiner provided “No Motivation to Combine.” Br. 12–14. Appellants support this assertion by repeating what has already been addressed, i.e., Sallee’s “material 100 is not a thermal shield” and Hembise’s element 24 is simply “a mud guard.” Br. 12. An explanation as to why these contentions by Appellants are not persuasive can be found above.

Appellants also contend, “[t]he Examiner has not presented any reasonable basis” “to replace a mud guard” “for the purpose of dissipating heat around the wheel housing.” Br. 13. However, it cannot be disputed that Sallee is specifically directed to dissipating heat of a “camouflaged object” so as to lower its infrared signature (Sallee 8:17–24), or that Hembise is concerned with reducing “the infrared signature of a vehicle wheel” (Hembise ¶ 5). Accordingly, Appellants are not persuasive that the Examiner failed to provide a reasonable basis “to include” a thermal shield with Hembise’s wheel shield “for the purpose of dissipating heat around the wheel housing.” Final Act. 3; *see also* Ans. 8. In other words, Appellants do not explain why one skilled in the art would have provided a thermal shield of a wheel, but not also provide a thermal shield for vehicle parts adjacent the wheel, when both Hembise and Sallee are concerned with the thermal signature emitted by a vehicle. *See* Hembise ¶ 2 (discussing mines that are triggered when a heat source passes thereby); Sallee 1:17–20 (discussing the revelation of vehicles, equipment and personnel by infrared detectors).

Appellants further contend, “[t]here is no disclosure in Hembise of the problem of the heat from parts adjacent the wheel.” Br. 13. In effect, Appellants are arguing the art individually by asserting that one reference

(Hembise) fails to disclose a feature (reducing the heat from parts adjacent the wheel) that the Examiner relied on another reference (Sallee) for. Final Act. 3; Ans. 7. The problem of heat dissipation is clearly disclosed by Sallee, i.e., “[t]he invention features a low thermal signature, particularly at wavelengths detected by infrared detectors designed to reveal camouflaged vehicles, equipment and personnel.” Sallee 1:17–20. Further, Hembise teaches a focus on the infrared signature of a vehicle’s wheel. Hembise ¶ 5. Hence, Appellants focus on one reference, rather than the teachings of the combined references, is not indicative of Examiner error.

Appellants also contend that “[t]he Evidence Points Away from the Combination” because Sallee’s thermal shield “is designed to thermally shield a stationary vehicle.” Br. 14; *see also id.* at 15. First, the Examiner notes that there is no claim recitation directed to any motion of the vehicle being shielded. *See* Ans. 9. Second, Appellants are simply incorrect regarding the teachings of Sallee not also being applicable to a moving vehicle. Br. 14–15. This is because Sallee discusses the garnishes being attached to the material “so as to resist being destroyed or forcibly stripped off the base camouflage material, *even when equipment such as a tank is driven through a forest.*” Sallee 2:55–61; *see also id.* at 2:54–55 (discussing “movement of the vehicle or equipment sought to be camouflaged”). Accordingly, Appellants’ contention based on the premise that Sallee is designed for “a stationary vehicle” is not persuasive.

Appellants also contend that the Examiner relied on “Improper Hindsight Reasoning” because “[n]either Hembise nor Sallee” address the problem of “shielding parts of a vehicle adjacent the wheel.” Br. 16. Appellants are not persuasive that one skilled in the art, knowledgeable of

both Hembise and Sallee, would fail to recognize a need to also shield “parts of a vehicle adjacent to the wheel” as claimed. As noted above, Sallee focuses on the vehicle in general. *See, e.g.*, Sallee 1:18–21, 1:66–67, 8:1–24. Hembise, on the other hand, is specifically directed to the wheel itself. *See* Hembise ¶ 5. This lends credence to the Examiner’s finding that the limitation directed to “parts of a vehicle adjacent to the wheel,” would have been obvious to one skilled in the art (Final Act. 3), and especially because we are instructed that a “person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007); *see also* Ans. 9 (“the combination of Hembise and [Sallee] is not the product of innovation but of ordinary skill and common sense”).⁴ In short, Appellants are not persuasive that the Examiner “is using hindsight gleaned from the applicant’s disclosure.” Br. 16.

Appellants further contend “that the Examiner has asserted inherency based on the structural similarity between the patented thermal shielding shown in Hembise and the claimed invention.” Br. 17 (referencing Final Act. 9). Indeed, the Examiner, at Final Act. 9, does address inherency between Hembise’s thermal shield which is a brush comprising bristles (*see* Hembise ¶¶ 8, 14) and Appellants’ thermal shield employing “brush means” which “may comprise radially-extending bristles” (Spec. 2:9–12). Because both structures employ the same bristle-like structure, and because both are employed for thermal shielding purposes, Appellants’ contention that the Examiner failed to provide a basis for this inherency finding because the

⁴ The Examiner also presents an “obvious to try” rationale in that “there is a design need to solve the problem of detecting military vehicles by thermal imaging and there are a finite number of identified, predictable solutions.” Ans. 9.

Examiner “relies on teachings outside the prior art” (Br. 17) is not persuasive of Examiner error. As stated by the Examiner, “Hembise teaches the structural limitations of the claims.” Ans. 10

Appellants further contend, “there is no evidence establishing that the anti-spatter mud guard 24 of Hembise would necessarily be a thermal shield.” Br. 17. This argument is not persuasive (a) based on the discussion above; (b) the Examiner’s further reliance on Sallee for disclosing thermal shielding; and, (c) Appellants’ focus on Hembise instead of the combination of Hembise and Sallee.

In summary, and based on the record presented, we sustain the Examiner’s rejection of claims 1–10, 12–18, and 20 as obvious over Hembise and Sallee.

The rejection of (a) claim 11 as obvious over Hembise, Sallee, and Cheng; and (b) claim 19 as obvious over Hembise, Sallee, and Randy

Appellants do not present separate arguments for the separate rejections of claims 11 and 19. Instead, Appellants contend that “neither Cheng nor Randy overcomes the deficiencies of Hembise and Sallee identified above.” Br. 18. Consequently, Appellants are not persuasive that the Examiner erred in relying on Hembise and Sallee for their respective teachings. Final Act. 7–8. We sustain the Examiner’s rejections of claims 11 and 19.

DECISION

The Examiner’s rejections of claims 1–20 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2015-000835
Application 13/640,276

AFFIRMED